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## **ABSTRACT**

A system and method for performing hydrothermal treatment includes a scraper formed as a hollow cylinder. The scraper is positioned in the reactor vessel with the scraper axis substantially co-linear with the longitudinal axis of the cylindrical reactor vessel. A mechanism is provided to rotate the scraper about the longitudinal axis of the reactor vessel. One or more elongated scraper bars are positioned inside the reactor vessel between the scraper and the longitudinal axis of the reactor vessel. Each scraper bar may be held stationary with respect to the reactor vessel, or each scraper bar may rotated relative to an axis passing through the scraper bar to remove any solids that have accumulated on the scraper or on the scraper bar. To prevent accumulation of precipitating solids on the scraper bar itself, each scraper bar may have internal cooling channels or the capability of releasing a purging fluid.

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